

## New species and records of *Menoscelis* Mulsant (Coleoptera: Coccinellidae) from French Guiana

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### Abstract

Three new species of *Menoscelis* Mulsant, 1850 from French Guiana are described: *Menoscelis angeloi* sp. nov. (Holotype male deposited in MNHN: Point de vue du Bélvédère de Saül, 09.IX.2011, SEAG col.), *M. cordata* sp. nov. (Holotype female deposited in MNHN: Réserve Naturelle des Nouragues—Saut Pararé 04°02'N, 52°41'W, 08.IX.2009, SEAG col.) and *M. flava* sp. nov. (Holotype female deposited in MNHN: Montagne des Chevaux 04°44'56"N, 02°26'28"W, 14.I.2012, SLAM, SEAG col.). The male of *M. insignis* Mulsant is described, and an identification key to the species of *Menoscelis* is included. New geographic distribution records, maps and a checklist of the species are also provided.

**Key words:** Hyperaspidinae, Hyperaspidini, Neotropical, taxonomy

### Resumo

Três novas espécies de *Menoscelis* Mulsant, 1850 da Guiana Francesa são descritas: *Menoscelis angeloi* sp. nov. (Holótipo macho depositado no MNHN: Point de vue du Bélvédère de Saül, 09.IX.2011, SEAG col.), *M. cordata* sp. nov. (Holótipo fêmea depositado no MNHN: Réserve Naturelle des Nouragues - Saut Pararé 04°02'N, 52°41'W, 08.IX.2009, SEAG col.) e *M. flava* sp. nov. (Holótipo fêmea depositado no MNHN: Montagne des Chevaux 04°44'56"N, 02°26'28"W, 14.I.2012, SLAM, SEAG col.). O macho de *M. insignis* é descrito e uma chave de identificação para as espécies de *Menoscelis* é incluída. Novos registros de distribuição geográfica, mapas e um checklist das espécies de *Menoscelis* são fornecidos.

**Palavras-chave:** Hyperaspidinae, Hyperaspidini, Neotropical, taxonomia.

### Introduction

Mulsant (1850) described the genus *Menoscelis* and included three species (*M. saginata*, *M. insignis* and *M. glauca*). Crotch (1874) considered *M. saginata* Mulsant, 1850 as a synonym of *M. insignis* Mulsant, 1850 and transferred *M. glauca* Mulsant, 1850 to *Thalassa* Mulsant, 1850. Chapuis (1876) considered *Thalassa* as a subgenus of *Menoscelis*. Gorham (1894) considered *Menoscelis* as a synonym of *Thalassa*. Korschefsky (1931) and Blackwelder (1945) considered *Menoscelis* as a subgenus of *Thalassa*, and listed *M. insignis* as an aberration of *M. saginata*; this opinion was followed by Duverger (1989) and Fürsch (1990a, b). Milléo *et al.* (2004) revised *Thalassa* and considered the two genera as valid, based on the different shape of the anterior legs, as Mulsant first proposed.

Gordon & Canepari (2008) revised the South American members of Hyperaspidini, redescribed *Menoscelis*, and described the male of *M. saginata* and the female of *M. insignis*. Corrêa *et al.* (2011) considered *Menoscelis* as a typical genus of Hyperaspidini (cited as Hyperaspini), due to the eyes not emarginate and the female genitalia with a globular basal unit (spermatheca) and lacking an infundibulum. These authors described *Menoscelis stephani* Corrêa *et al.*, 2011 and *M. brunella* Corrêa *et al.*, 2011 from French Guiana, and expanded the key proposed by Gordon & Canepari (2008), including their new species.

In the present contribution, we describe and illustrate three new species of *Menoscelis* and the male of *M. insignis*. Also, we provide distribution maps and a checklist of the known species of *Menoscelis*, with new records and additional material.

## Material and methods

The specimens examined were provided by the Inventaire Entomologique of French Guiana, Société Entomologique Antilles-Guyane (SEAG), and belong to the Coleção Entomológica Pe. J. S. Moure, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil (DZUP) and Muséum National d'Histoire Naturelle, Paris, France (MNHN). The specimens in the annotated checklist were provided by the same institutions and the University Museum of Zoology, Cambridge, England (UMZC).

The terminology used in the descriptions follows Ślipiński (2007), Gordon & Canepari (2008) and Corrêa *et al.* (2011). The distribution maps were made using QGIS 2.6, based on labels, catalogues and published data.

Labels of the type material are arranged in sequence from top to bottom, where the data for each label are within double quotes (""), a slash (/) separates the rows, and information between brackets ([])) provides additional details written on the labels.

## Results

### *Menoscelis* Mulsant, 1850

*Menoscelis* Mulsant, 1850: 506, 508; Crotch, 1874: 209; Gemminger & Harold, 1876: 3783; Chapin, 1966: 279; El-Ali, 1972: 23; Gordon, 1987: 26; Milléo *et al.*, 2004: 395; Gordon & Canepari, 2008: 271–274.

*Menoscelis* (*Thalassa*): Chapuis, 1876: 228, 233–234.

*Thalassa* (*Menoscelis*): Korschefsky, 1931: 208; Blackwelder, 1945: 449; Duverger, 1989: 146; Fürsch, 1990b: 63.

**Type species.** *Menoscelis saginata* Mulsant, 1850, by subsequent designation of Crotch (1874).

**Diagnosis.** *Menoscelis* is a Neotropical genus that is structurally similar to *Diazonema* Weise, 1926, but differs from all other genera of the tribe in the highly modified protibia, angulate near its base (Figs 5D–E) and the transverse female genital plate with spoon-like setae near the apex. *Diazonema* presents a combination of short and compressed protibia, and a transverse female genital plate lacking spoon-like setae near the apex.

In addition to the generic characters described by Gordon & Canepari (2008), species of this genus have other useful characters that aid in their recognition: body usually large (4.5–7.5 mm) and rounded, moderately to strongly convex. Dorsal surface glabrous or pubescent, maculate or not. Prosternum process about half the coxal diameter, surface with complete or incomplete carinae joined anteriorly, forming a triangle (Figs 5C, 6E). Prosternal carinae often joined, sometimes connected to the anterior margin of the prosternum by a single carina (Figs 8A–G, 9A–E). Epipleura large, external margin explanate (Figs 5H, 6H). Protibia flattened, medially emarginate or with parallel sides, tibial groove deep, long, not flanged posteriorly, angulate near base (Figs 5D–E, 6F–G); meso- and metatibia narrow, medially emarginate or with parallel sides, not flanged, with shallow tibial groove (Figs 5F, 6I). Abdominal postcoxal line incomplete, recurved or slightly recurved (Figs 5G, 6J). Parameres symmetrical; basal lobe asymmetrical. Sipho slender with well-developed, T-shaped siphonal capsule (Figs 1E–G, 4D–F). Coxites transverse with spoon-like setae near apex, styles well developed, with or without apical setae; infundibulum lacking; sperm duct simple, uniform in diameter (Figs 1H, 2E, 3F). Spermatheca with rounded cornu and narrow at base; distal capsule adjacent to cornu or sperm duct (Figs 2F, 3G).

**Remarks.** Two species, *M. angeloi* sp. nov. and *M. cordata* sp. nov., lack the protibial emargination but are considered members of *Menoscelis* due to the described characters and male and female genital patterns.

### Key to species of *Menoscelis* Mulsant

1. Tibia with parallel sides.....	2
1'. Tibia angulate.....	3
2(1). Elytra reddish yellow, with three or four small black spots (Fig. 1).....	<i>Menoscelis angeloi</i> sp. nov.

2'. Elytra metallic greenish black with a large yellow cordiform spot on the disc (Fig. 2) ..... *Menoscelis cordata* sp. nov.

3(1'). Pronotum brown with dark-brown anterior border; elytra and scutellum light brown, without spots, lateral margin with narrow brown border ..... *Menoscelis brunella* Corrêa, Santos & Almeida

3'. Pronotum with different pattern, elytra with spots ..... 4

4(3'). Elytra yellow, with brown spots, one large spot on suture; each elytron with two smaller spots, one on humeral callus and one on lateral border ..... *Menoscelis saginata* Mulsant

4'. Elytra with different pattern, black or yellow spots ..... 5

5(4'). Elytra reddish brown with five yellow spots, three near suture and two on outer margin ..... *Menoscelis insignis* Mulsant

5'. Elytra with black spots ..... 6

6(5'). Elytra yellowish red, with discal and apical spots not reaching suture ..... *Menoscelis stephani* Corrêa, Santos & Almeida

6'. Elytra yellowish brown, with discal and apical spots joined at suture (Fig. 3) ..... *Menoscelis flava* sp. nov.

***Menoscelis angeloi* sp. nov.**

(Figures 1, 6, 9, 11)

**Material examined.** “Guyane Française, Point/de vue du Bélvédère de/Saül, 09. IX.2011, vitre,/SEAG col. “Male” [white label]. “HOLOTYPE/*Menoscelis angeloi*/Santos, Churata-Salcedo & Almeida, 2015” [red label]. [MNHN]. “Guyane Française, 4°44'56”N 2°26'28”W, Montagne des Chevaux, /75 m, 17. III.2012, /polytrap, SEAG col.” “DZUP/285311” [white label]. “PARATYPE/*Menoscelis angeloi*/Santos, Almeida & Churata-Salcedo, 2015” [yellow label]. “Guyane Française, Montagne des Chevaux, /08. V.2011, /vitre,/SEAG col. ” “Female” “DZUP/289364” [white label]. “PARATYPE/*Menoscelis angeloi*/Santos, Almeida & Churata-Salcedo, 2015” [yellow label].

**Description (male).** Length 5.01, width 4.42 mm. Body rounded, strongly convex (Fig. 1B). Head yellowish with triangular black spot; clypeus with anterior margin brownish, labrum dark yellowish. Eyes finely faceted, not emarginate; interfacetal setae absent. Antennal insertion exposed. Antennae 10-segmented; scape with convex external surface; pedicel distinctly narrower than scape; antepenultimate antennomere about 2.5 times longer than other segments. Clypeus short, transverse, anterior clypeal margin emarginate medially, with small blunt lateral projections. Labrum exposed. Mandibles bifid, with basal tooth. Maxillary palps securiform. Labial palps 3-segmented. Mentum cordiform. Pronotum black with yellowish anterior and lateral margins; narrow basal pronotal line present; basomedian projection of pronotum truncate. Prosternal process with complete carinae, joined anteriorly forming a triangle, with stem varying in length, reaching anterior margin of prosternum (Fig. 9D). Each elytron reddish yellow with narrow black lateral margin; three small black spots: first spot smallest, on humeral callus, second on elytral disc, third near lateral margin (Fig. 1A). Epipleura yellowish, explanate, and excavated to receive femoral apices. Middle part of pro-, meso- and metasternum black. Legs black, except apices of femora yellowish. Protibia slightly angulate near base, with parallel sides. Abdomen yellowish with yellow pubescence. Abdominal postcoxal lines recurved and incomplete, joined from hind margin of ventrite, oblique line absent. Ventrite 5 in male without apparent sexual characters (Fig. 1F). Male genitalia with basal lobe asymmetrical, shorter than parameres, apex rounded; parameres symmetrical, straight, apex rounded with short setae (Figs 1G–H); siphon slender, long, slightly curved; siphonal capsule with outer arm well developed; apex slightly sinuate and wide (Fig. 1I).

**Female.** Length 5.25, width 4.67 mm. Similar to male (Figs 1E, 6A–J, 9C, E). Each elytron reddish yellow with narrow black lateral margin; four small black spots: first spot smallest, on humeral callus, second on elytral disc, third near lateral margin, and fourth apical, joined at suture (Figs 1C–D). Genital plate transverse (Fig. 1J). Spermatheca with rounded cornu and slender base with wide sinuate cornu projection (Fig. 1J). Coxites with spoon-shaped setae and style with apical setae well developed; tergite with long setae curved at apex (Fig. 1K).

**Etymology.** This species is named in honor of the dedicated entomologist and specialist on Odonata, Dr. Angelo B. M. Machado.

**Geographical distribution.** French Guiana (Point de vue du Bélvédère de Saül and Montagne des Chevaux) (Fig. 11).

**Remarks.** *Menoscelis angeloi* sp. nov. differs from all other species of the genus, except *M. cordata* sp. nov., based on the indistinct, very short grayish-white semidecumbent pubescence and the tibia slightly angulate near the base, with parallel sides (Figs 6F–G). This species differs from *M. cordata* sp. nov. in the color pattern and female genitalia. The elytral color pattern of *M. angeloi* sp. nov. resembles *M. stephani* and *M. flava* sp. nov., but differs from these species in the size of the discal and lateral spots, shape of the spermatheca, and location of the spermathecal gland.

***Menoscelis cordata* sp. nov.**

(Figures 2, 7, 9, 11)

**Type Material.** “Guyane Française, 4°02'N 52°41'W, Réserve/Naturelle des Nouragues–/Saut Pararé, 08. IX.2009./vitre, SEAG col.” “Female” [white label]. “HOLOTYPE/*Menoscelis cordata*/Santos, Almeida & Churata-Salcedo, 2015” [red label]. [MNHN].

**Description (female).** Length 5.01, width 4.58 mm. Body rounded, strongly convex (Figs 2A–B). Head yellowish with triangular black spot; clypeus with anterior margin black, labrum dark brown. Pronotum metallic greenish black, anterior and lateral margins yellowish (Fig. 2B). Eyes finely faceted, not emarginate; interfacetal setae absent (Fig. 7E). Antennal insertion exposed (Fig. 7E). Antennae 10-segmented; scape with convex external surface; pedicel distinctly narrower than scape; antepenultimate antennomere about 2.5 times longer than other segments (Fig. 7E). Clypeus short, transverse, anterior clypeal margin emarginate medially, with small blunt lateral projections (Fig. 2B). Labrum exposed. Mandibles bifid, with basal tooth. Maxillary palps securiform (Fig. 7D). Labial palps 3-segmented (Fig. 7D). Mentum cordiform (Fig. 7D). Prosternal process with complete carinae, joined anteriorly forming a triangle, with stem varying in length, reaching anterior margin of prosternum (Figs 7D, 9B). Elytra metallic greenish black with large cordiform yellow spot on the disc; epipleura dark brown, explanate and excavated to receive femoral apices (Fig. 7D). Pro- and mesosternum dark brown; metasternum yellowish. Legs brown with apices of femora yellowish. Protibia slightly angulate near base, sides parallel (Fig. 7F). Abdomen yellowish, with yellow pubescence (Fig. 2C–D). Abdominal postcoxal lines recurved and incomplete, next to hind margin of ventrite, oblique line absent (Figs 2C–D). Genital plate transverse (Fig. 2E). Spermatheca with rounded cornu and wide apical projection, base slender (Figs 2E, F). Coxites with spoon-shaped setae; style with indistinct apical setae and tergite with setae curved at apex (Fig. 2G).

**Male.** Unknown.

**Etymology.** This species is named based on the shape of the elytral spot, *cordata* L., heart-shaped.

**Geographical distribution.** French Guiana (Réserve Nationale Naturelle des Nouragues–Saut Pararé) (Fig. 11).

**Remarks.** *Menoscelis cordata* sp. nov. differs from all other species of the genus in its color pattern and female genitalia. The presence of very short grayish-white semidecumbent pubescence and the shape of the legs of *M. cordata* sp. nov. resembles only *M. angeloi* sp. nov.

***Menoscelis flava* sp. nov.**

(Figures 3, 7, 9, 11)

**Material examined.** “Guyane Française, 4°44'56”N 2°26'28”W, Montagne des Chevaux/14.I.2012./malaise SLAM./SEAG col.” “Female” [white label]. “HOLOTYPE/*Menoscelis flava*/Santos, Almeida & Churata-Salcedo, 2015” [red label]. [MNHN].

**Description (female).** Length 4.5, width 4.17 mm. Body rounded, strongly convex (Figs 3A–C). Head yellowish with one triangular black spot; clypeus with anterior margin brownish, labrum dark yellowish. Pronotum black with yellowish anterior and lateral margins (Figs 3A–C). Eyes finely faceted, not emarginate; interfacetal setae absent. Antennal insertion exposed. Antennae 10-segmented; scape with convex external surface; pedicel distinctly narrower than scape; antepenultimate antennomere about 2.5 times longer than other segments (Fig. 7G). Clypeus short, transverse, anterior clypeal margin emarginate medially, with small blunt lateral projections. Labrum exposed. Mandibles bifid, with basal tooth. Maxillary palps securiform. Labial palps 3-segmented. Mentum cordiform. Prosternal process with complete carinae, joined anteriorly forming a triangle, with long stem, reaching anterior margin of prosternum (Fig. 9A). Each elytron yellowish with narrow black lateral margin; three black spots: first quadrangular, on humeral callus; second on elytral disc, joined at suture; third at apex (Figs 3A, C). Epipleura yellowish with black lateral margins, explanate and excavated to receive femoral apices. Middle part of pro-, meso- and metasternum black. Legs black, except apices of femora yellowish. Protibia slightly angulate near base and emarginate. Abdomen yellowish with yellow pubescence (Figs 3D–E). Abdominal postcoxal lines recurved and incomplete, joined from hind margin of ventrite, oblique line absent (Figs 3D–E). Genital plate transverse (Fig. 3F). Spermatheca with rounded cornu, and wide, sinuate apical projection, base slender (Figs 3F–G). Coxites with spoon-shaped setae and style with well-developed apical setae; tergite with long setae curved at apex (Fig. 3H).

**Male.** Unknown.

**Etymology.** This species is named after the color of its body pubescence, *flava* L., yellow.

**Geographical Distribution:** French Guiana (Roura, Montagne des Chevaux) (Fig. 11).

**Remarks.** *Menoscelis flava* sp. nov. differs from all other species of the genus. The elytral color pattern of *Menoscelis flava* sp. nov. resembles *M. stephani* and *M. angeloi* sp. nov., but differs in the size of the discal and lateral spots, and the shape of the spermatheca.

### ***Menoscelis insignis* Mulsant, 1850**

(Figures 4, 7, 8, 10)

**Material examined.** “Guyane Française, 3°37'22”N 53°12'57”W/Bélvédère de Saül, 326/m 30.VI.2011, vitre 1, / SEAG col.” “Male” “DZUP/289045”[white label]. “Guyane Française, 4°05’N 52°41’W, Réserve/Naturelle des Nouragues–/Camp Inselberg, 411 m, 28.VI.2013, vitre, /SEAG col.” “DZUP/189143”[white label]. “Guyane Française, 4°44'56”N 52°26'28”W, Montagne des Chevaux, 18. X.2014, malaise/SLAM, SEAG col.” “DZUP/146707” [white label].

**Description (male).** For more detailed description, see Gordon & Canepari (2008) and Corrêa, Santos & Almeida (2011). Length: 6.58, width: 5.58 mm. Similar to female in all aspects except for elytral spots larger and almost joined (Fig. 4A, B). Abdomen yellowish with yellow pubescence (Fig. 4C). Genitalia with basal lobe asymmetrical, half length of parameres, apex slightly obliquely truncated; parameres straight, apex rounded with long setae (Fig. 4D, E); siphon slender, long, strongly curved; siphonal capsule with inner and outer arm developed; apex sinuate (Fig. 4F–H).

**Geographical Distribution.** French Guiana (Cayenne, Montagne des Chevaux, Bélvédère de Saül and Réserve Naturelle des Nouragues **New records**) and Brazil (AM, Itacoatiara) (Fig. 10).

**Remarks.** *Menoscelis insignis* differs widely from all other species of the genus in its color pattern and male genitalia. The shape of the mentum and legs, 11-segmented antennae, and the slightly curved postcoxal line of *M. insignis* resemble *M. saginata* (Figs 5A–B, D–E, G).

### **Annotated checklist of the *Menoscelis* species**

#### **1. *Menoscelis saginata* Mulsant, 1850**

*Menoscelis saginata* Mulsant, 1850: 508–509; Crotch, 1874: 209; Fürsch, 1990b: 63. Gordon & Canepari, 2008: 272; Corrêa *et al.*, 2011: 34.

*Thalassa (Menoscelis) saginata*: Korschefsky, 1931: 208; Blackwelder, 1945: 449.

*Thalassa (Monoscelis) saginata* (sic!): Orivel *et al.*, 2004: 97 (biology).

**Material examined.** “Guyane Française, 4°44'56”N 52°26'28”W, Montagne des Chevaux, 75 m, 14. X.2012, vitre, /SEAG col.” “DZUP/285427” [white label]. “Guyane Française, 3°37'22”N 53°12'57”W, Bélvédère de Saül, 25.VIII.2011, 326 m/vitre, SEAG col.” “DZUP/246069” [white label]. “Guyane Française, 4°05’N 52°41’W, Réserve/Naturelle des Nouragues–/Camp Inselberg, 411 m, 25.VII.2013, vitre, / SEAG col.” “DZUP/189137” [white label].

**Type locality.** French Guiana, Cayenne (MNHL) lectotype designated by Gordon & Canepari (2008, p.272–273).

**Distribution.** French Guiana: Cayenne; Bélvédère de Saül; Montagne des Chevaux; Réserve Naturelle des Nouragues - Camp Inselberg (**New record**) and Peru: Satipo (González 2007) (Fig. 10).

#### **2. *Menoscelis insignis* Mulsant, 1850**

*Menoscelis insignis* Mulsant, 1850: 509–510; Crotch, 1874: 209; Gordon, 1987: 26; Gordon & Canepari, 2008: 274; Corrêa *et al.*, 2011: 34–35.

*Menoscelis (Thalassa) insignis* var. *saginata*: Gemminger & Harold, 1876: 3783.  
*Thalassa (Menoscelis) saginata* ab. *insignis*: Korschefsky, 1931: 208; Blackwelder, 1945: 449.

**Type locality.** French Guiana, Cayenne (UMZC).

**Distribution.** French Guiana: Cayenne; Montagne des Chevaux; Bélvédère de Saül (**New record**) and Réserve Naturelle des Nouragues—Camp Inselberg (**New record**) and Brazil: AM, Itacoatiara (Fig. 10).

### 3. *Menoscelis stephani* Corrêa, Santos & Almeida, 2011

*Menoscelis stephani* Corrêa, Santos & Almeida, 2011: 32–34.

**Material examined.** “Guyane Française, 4°44'56”N 52°26'28”W, Montagne des Chevaux, 75 m, 26. VI.2011, vitre, SEAG col.” “DZUP/209015” [white label].

“Guyane Française, 4°44'56”N 52°26'28”W, Montagne des Chevaux, 75 m, 22. V.2011, vitre, SEAG col.” “DZUP/289143” [white label].

**Type locality.** French Guiana (Roura, Montagne des Chevaux) (MNHN).

**Distribution.** French Guiana: Montagne des Chevaux (Fig. 11).

### 4. *Menoscelis brunella* Corrêa, Santos & Almeida, 2011

*Menoscelis brunella* Corrêa, Santos & Almeida, 2011: 34.

**Type locality.** French Guiana: Montagne des Chevaux (MNHN).

**Distribution.** French Guiana: Montagne des Chevaux (Fig. 11).

### 5. *Menoscelis angeloi* Santos, Churata-Salcedo & Almeida sp. nov.

**Type material.** Holotype, male (MNHN).

**Type locality.** French Guiana: Point de vue du Bélvédère de Saül.

**Geographical distribution.** French Guiana: Point de vue du Bélvédère de Saül and Montagne des Chevaux (Fig. 11).

### 6. *Menoscelis cordata* Santos, Churata-Salcedo & Almeida sp. nov.

**Type material.** Holotype, female (MNHN).

**Type locality.** French Guiana: Réserve Nationale Naturelle des Nouragues – Saut Pararé.

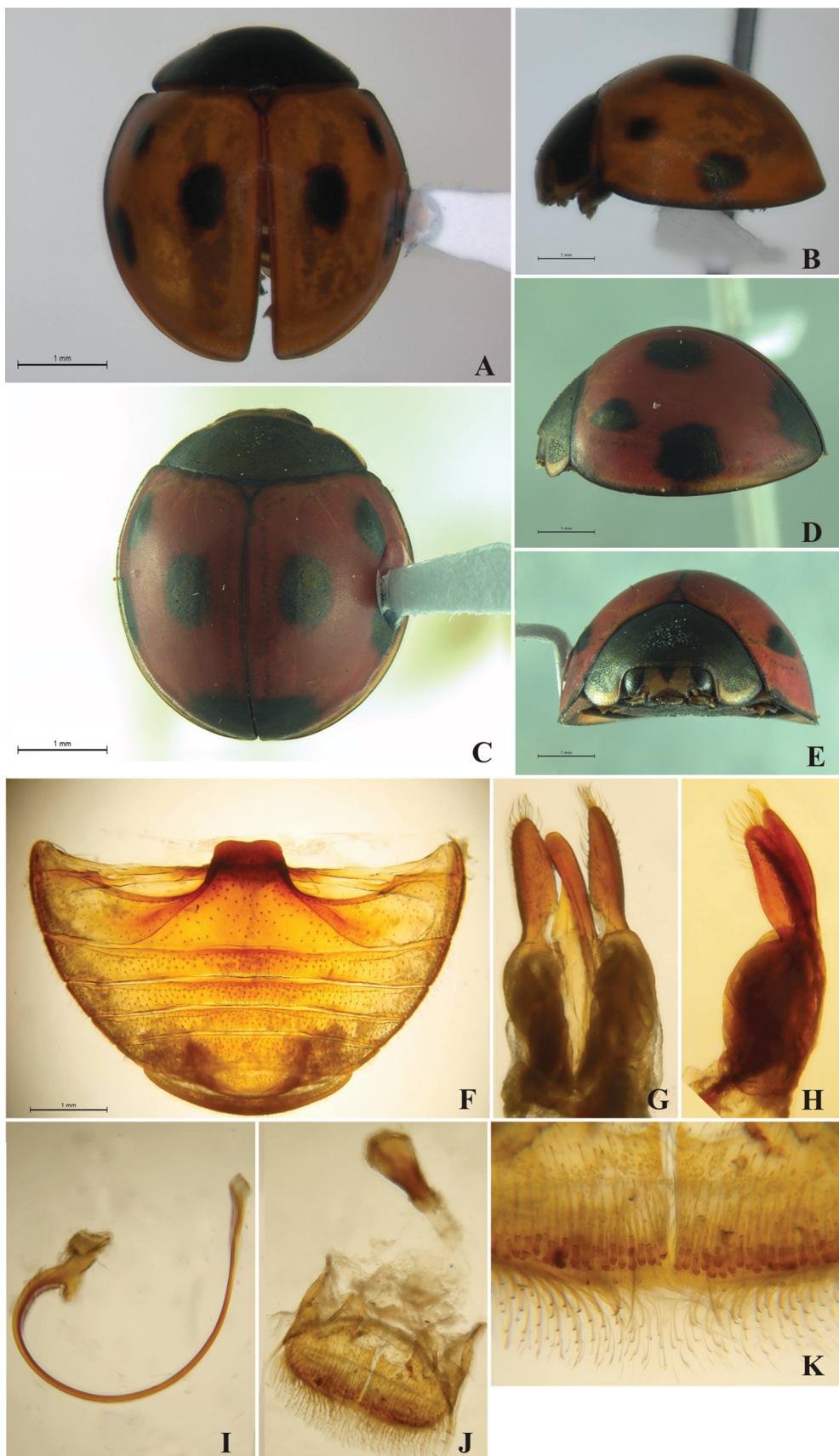
**Geographical distribution.** French Guiana: Réserve Nationale Naturelle des Nouragues–Saut Pararé (Fig. 11).

### 7. *Menoscelis flava* Santos, Churata-Salcedo & Almeida sp. nov.

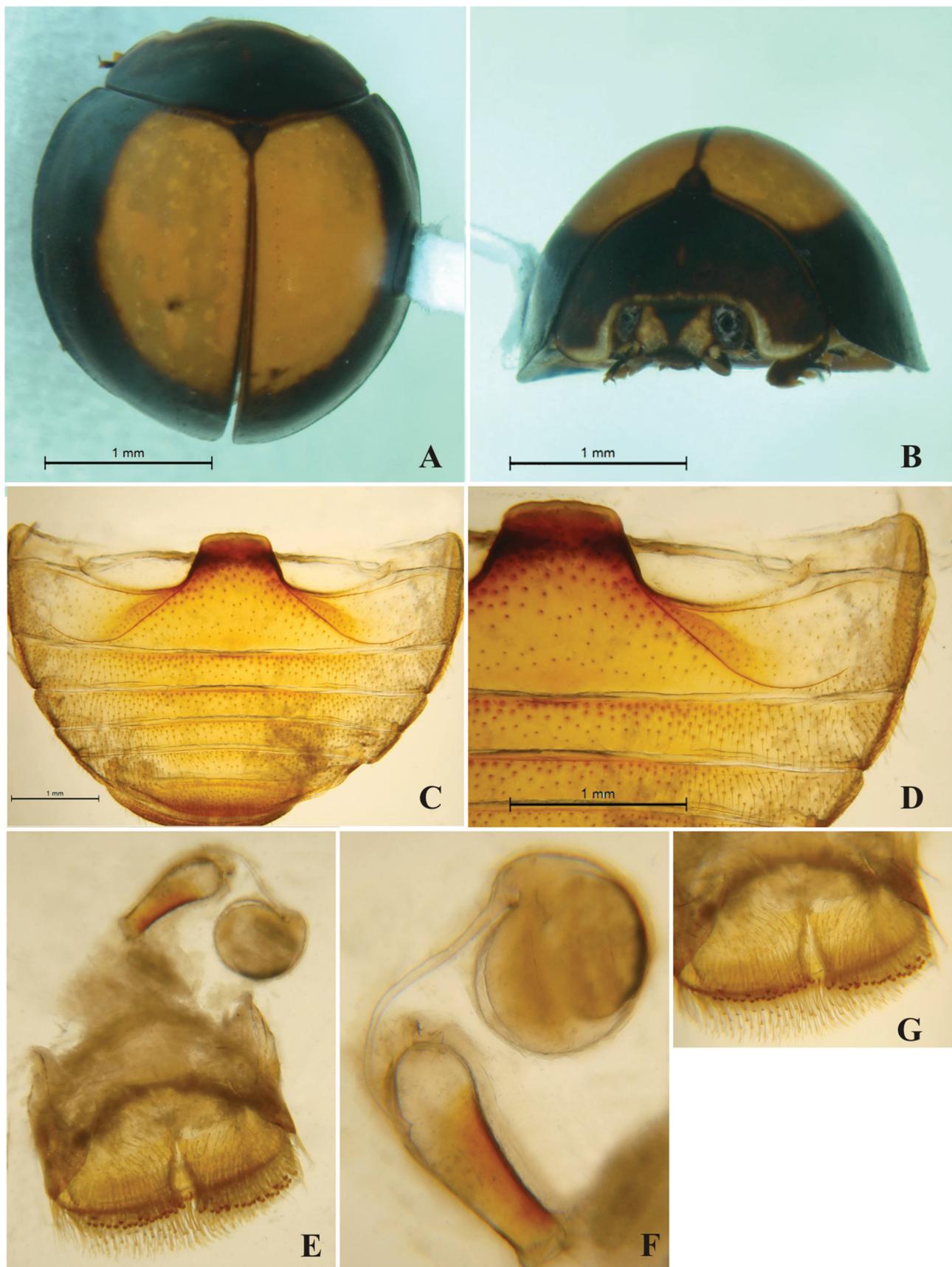
**Type material.** Holotype, female (MNHN).

**Type locality.** French Guiana: Montagne des Chevaux.

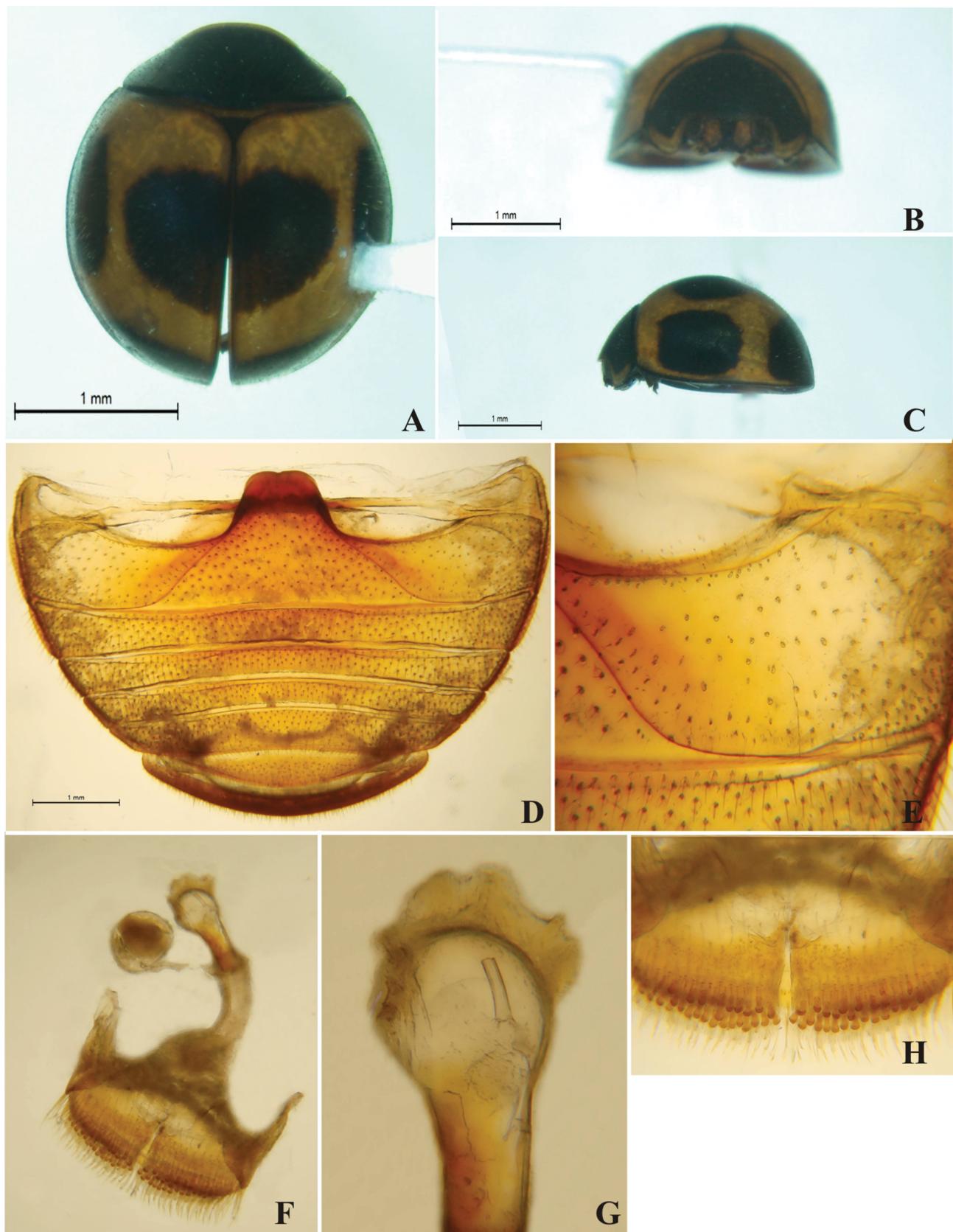
**Geographical distribution.** French Guiana: Montagne des Chevaux (Fig. 11).



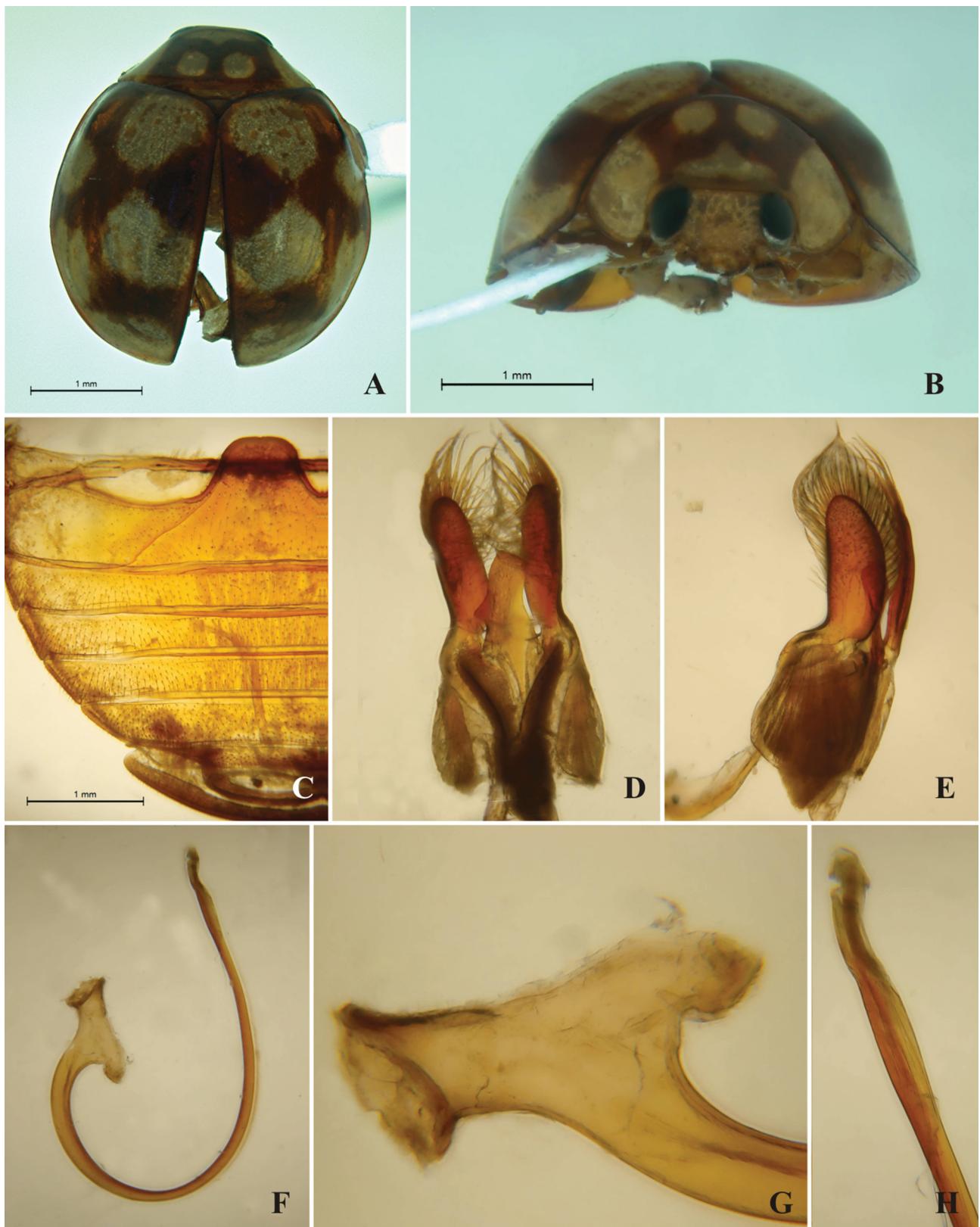
**FIGURE 1.** *Menoscelis angeloi* sp. nov. habitus and genitalia of holotype and paratype A–B. male habitus in dorsal (A) and lateral (B) views; C–E. female habitus in dorsal (C), lateral (D), and frontal (E) views; F. abdomen. G–K. male genitalia, G. tegmen, dorsal; H. same in lateral view; I. siphon; J. female genitalia; K. coxites.



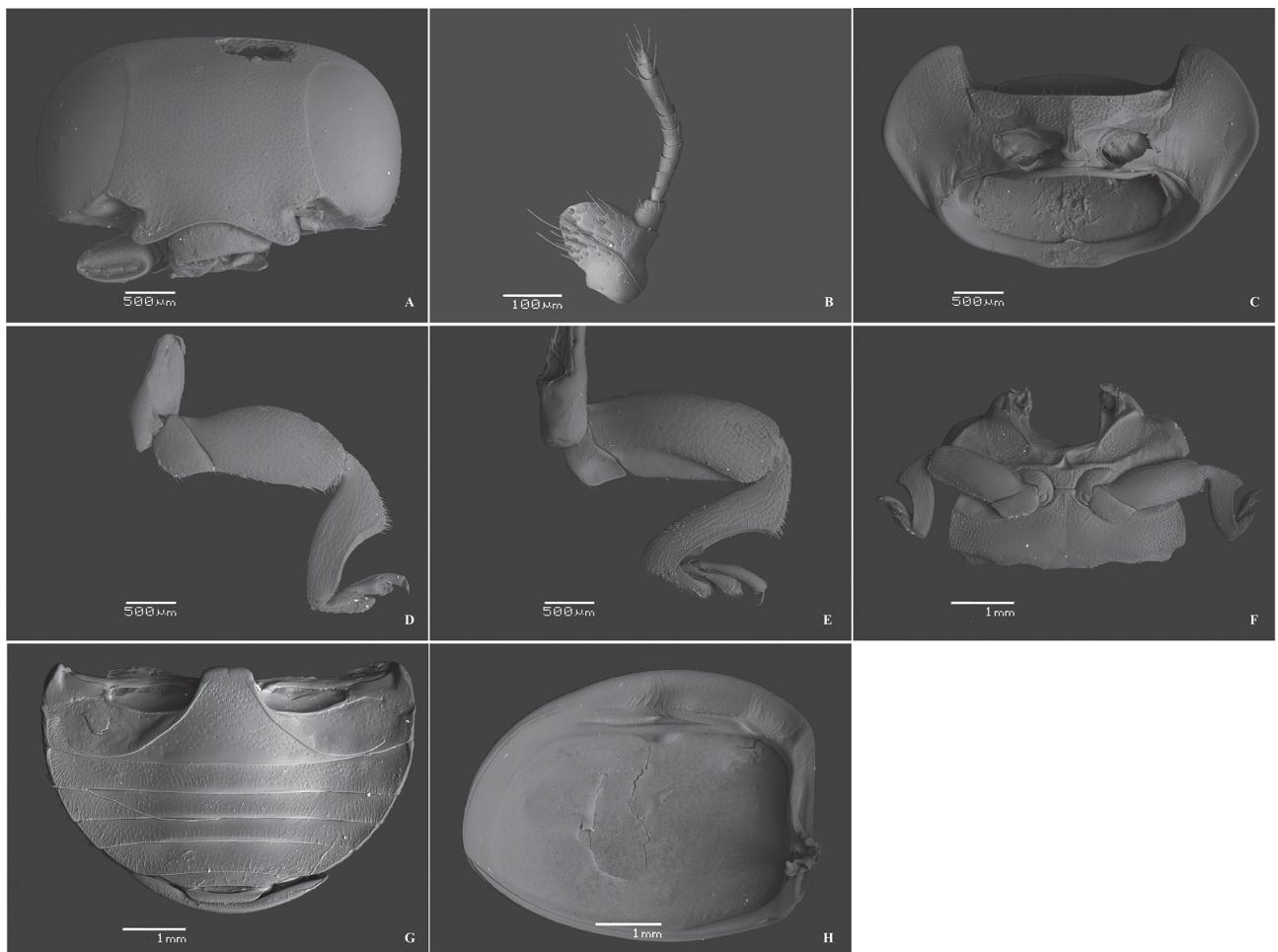
**FIGURE 2.** *Menoscelis cordata* sp. nov. habitus and details of morphology of female holotype. A–B. habitus in dorsal (A) and frontal (B) views; C. abdomen; D. post coxal line; E–G. female genitalia, F. spermatheca, G. coxites.



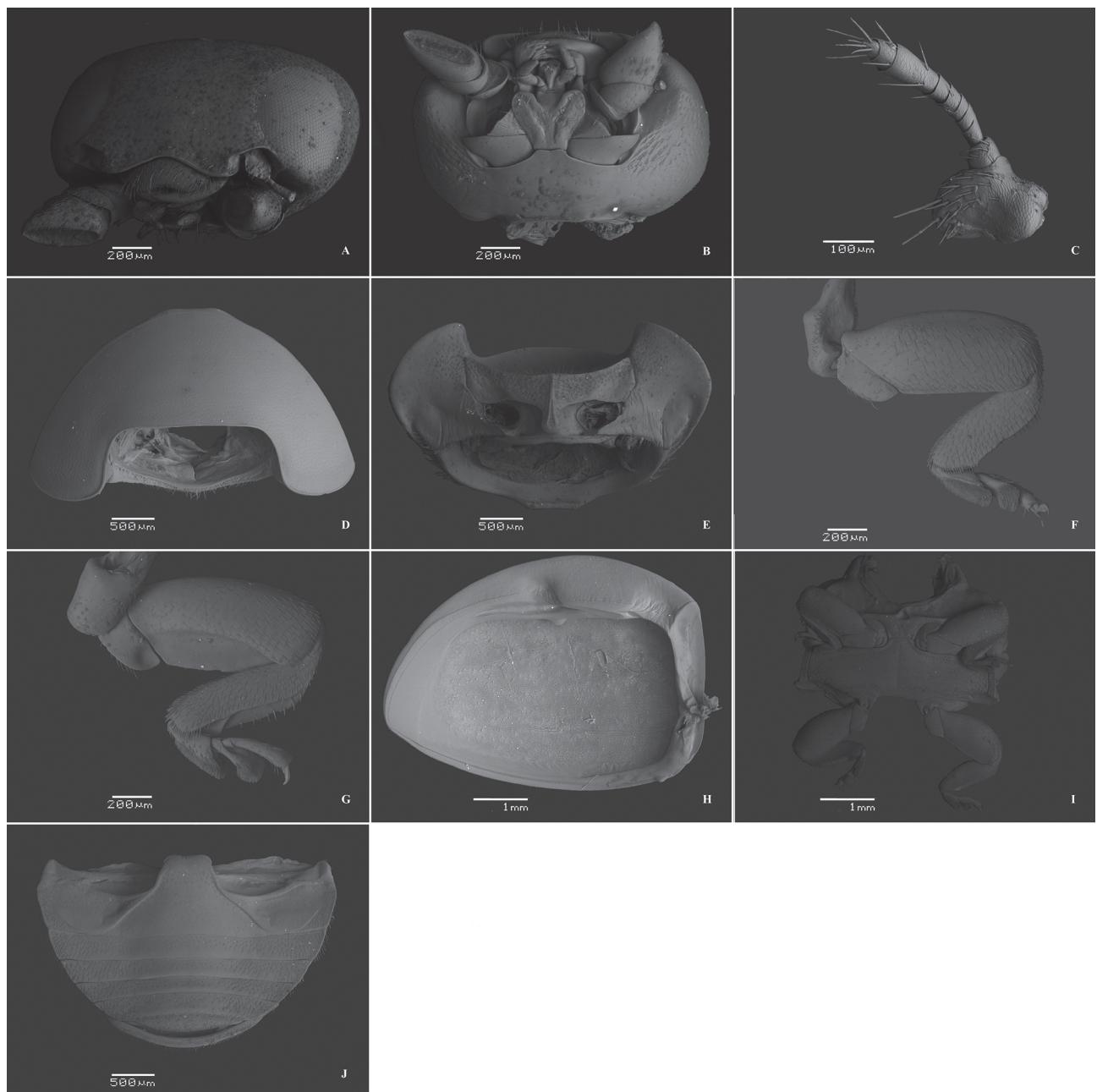
**FIGURE 3.** *Menoscelis flava* sp. nov. habitus and details of morphology of female holotype. A–C. habitus in dorsal (A), frontal (B), and lateral (C) views; D. abdomen; E. post coxal line; G–H. female genitalia, G. spermatheca, H. coxites.



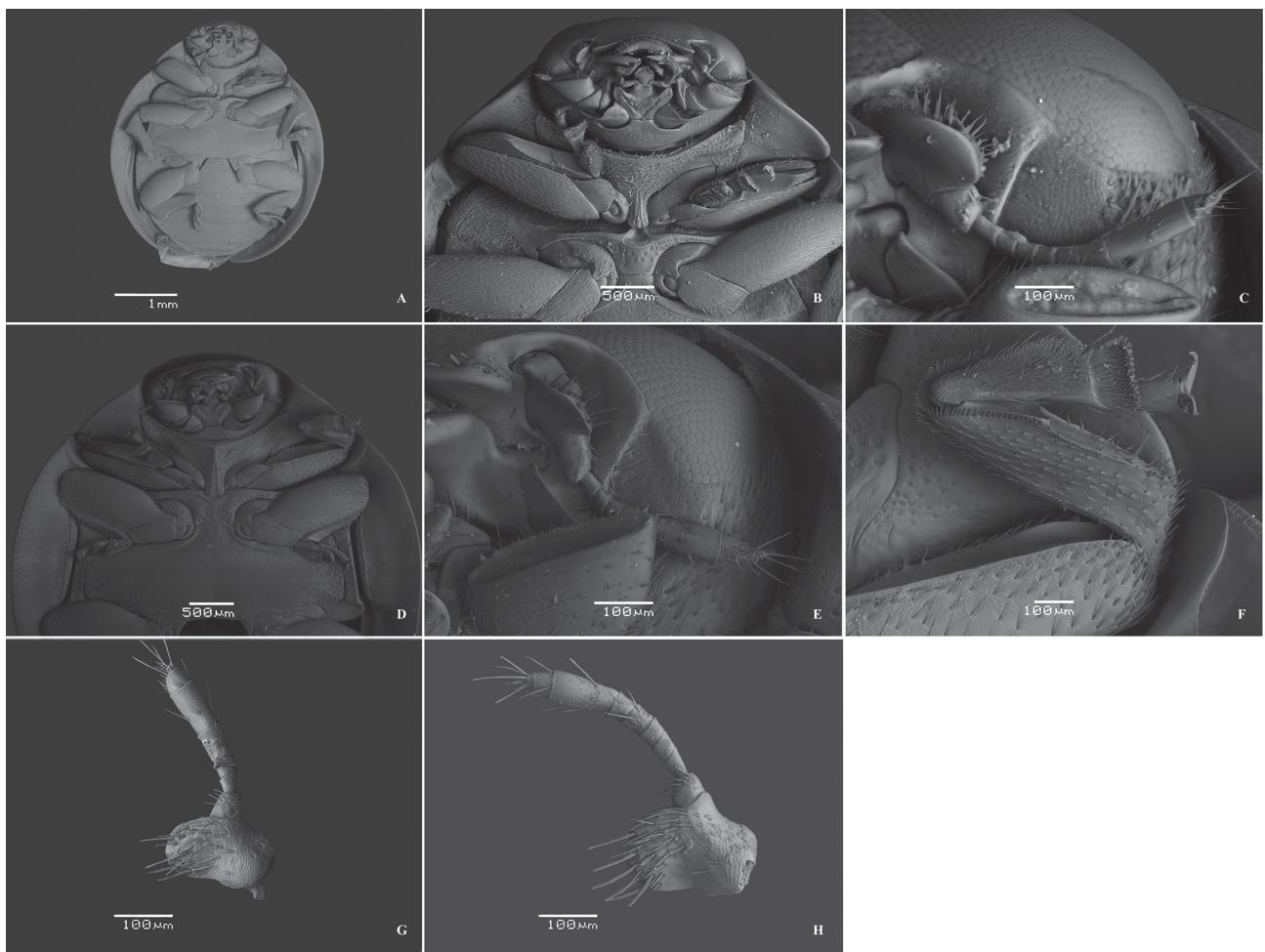
**FIGURE 4.** *Menoscelis insignis* Mulsant, 1850 habitus and details of morphology of male. A–B. habitus in dorsal (A) and frontal (B) views; C. abdomen; D–H. male genitalia; D. tegmen in dorsal view; E. same in lateral view; F. siphon; G. siphonal capsule; H. siphon apex.



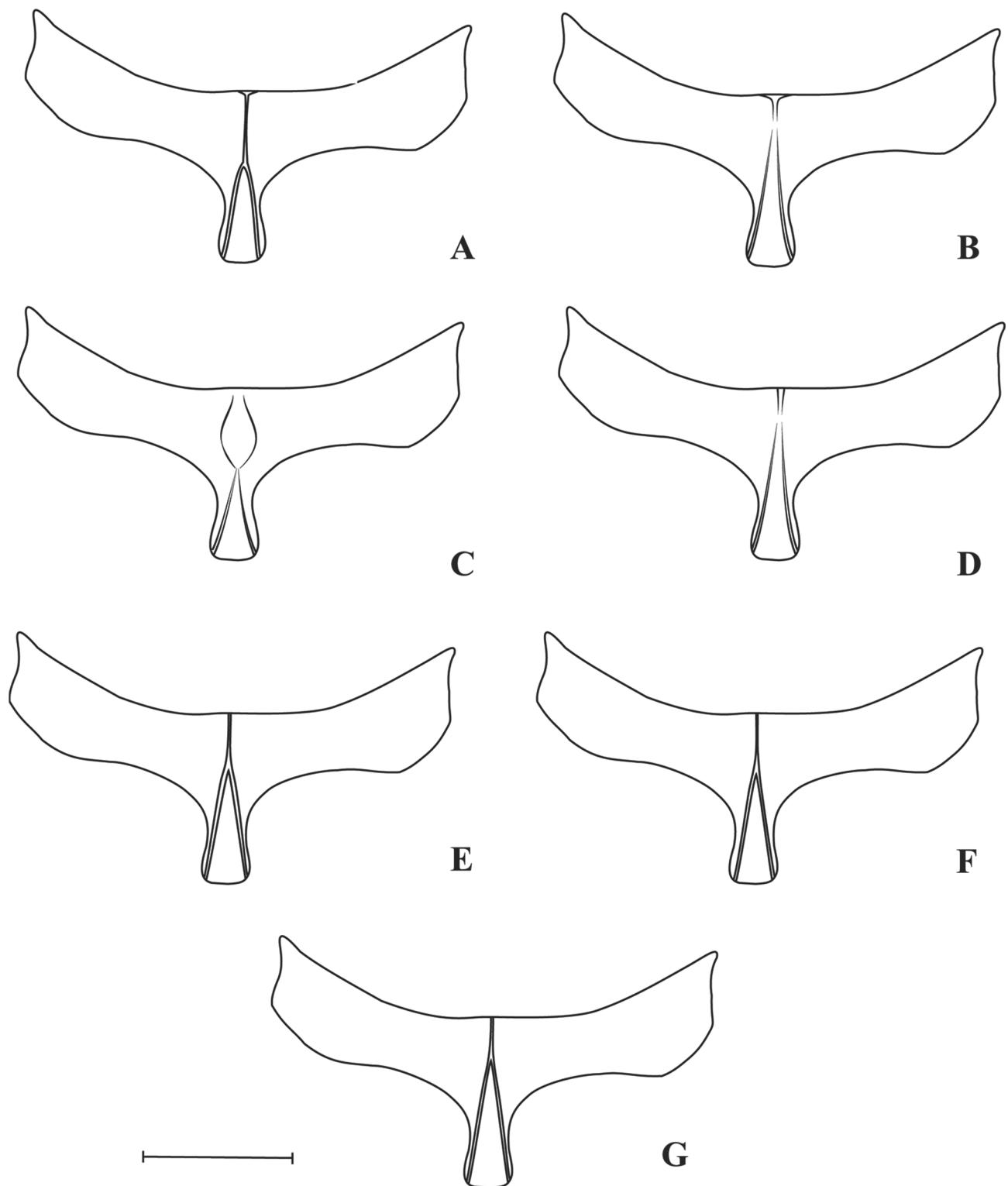
**FIGURE 5.** *Menoscelis saginata* Mulsant, 1850. A. head frontal view; B. antenna; C. prosternum; D–E. anterior leg in dorsal (D) and ventral (E) views. F. metasternum; G. abdomen; H. epipleuron.



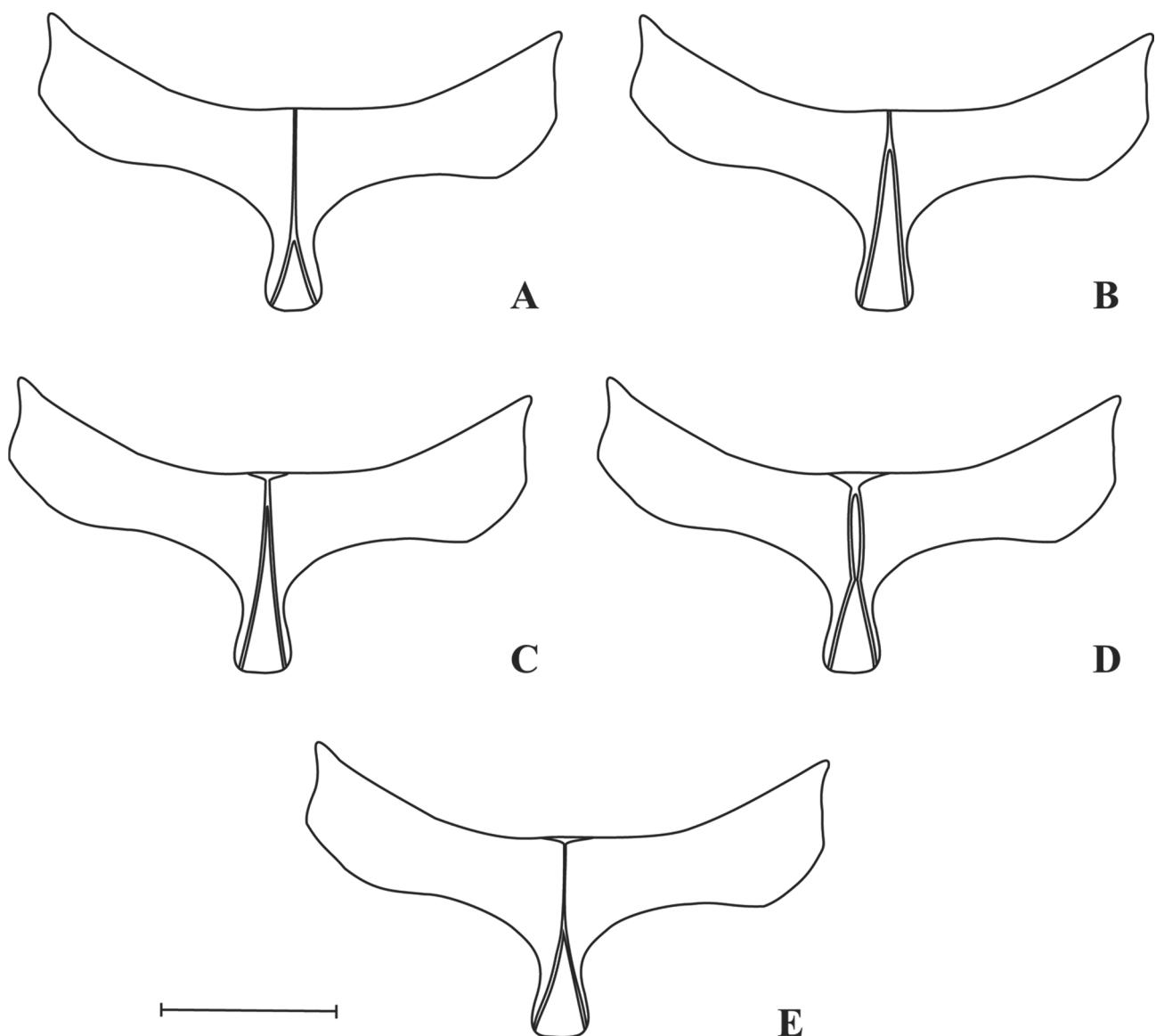
**FIGURE 6.** *Menoscelis angeloi* sp. nov. A–B. head in frontal (A), and ventral (B) views; C. antenna; D. pronotum; E. prosternum; F–G. anterior legs in dorsal (F) and ventral (G) views; H. epipleuron; I. metasternum; J. female abdomen.



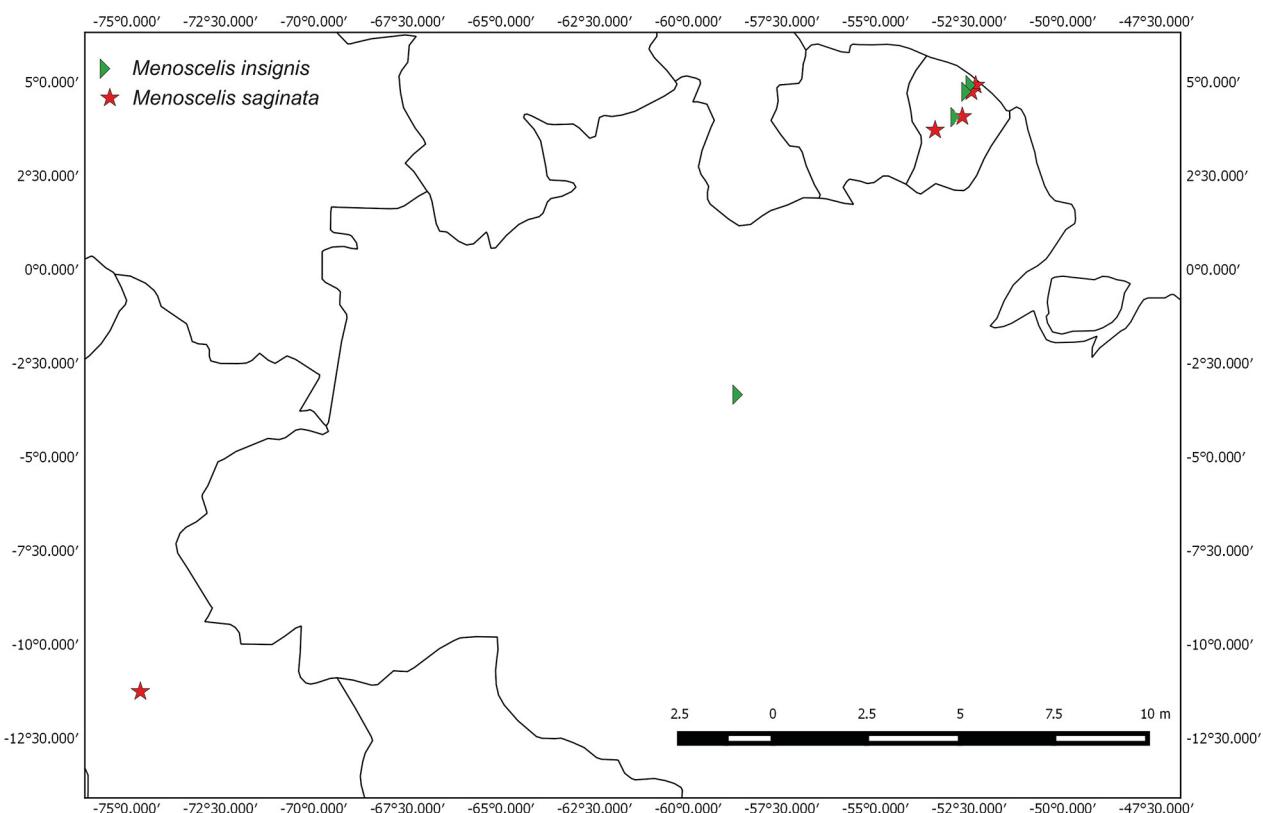
**FIGURE 7.** *Menoscelis insignis* Mulsant, 1850 (A–B) Ventral view. (C) Antenna. *Menoscelis cordata* sp.nov. (D) Ventral view. (E) Antenna. (F) Anterior leg. *Menoscelis flava* sp.nov. (G) Antenna. *Menoscelis stephani* Corrêa, Santos & Almeida, 2011 (H) Antenna.



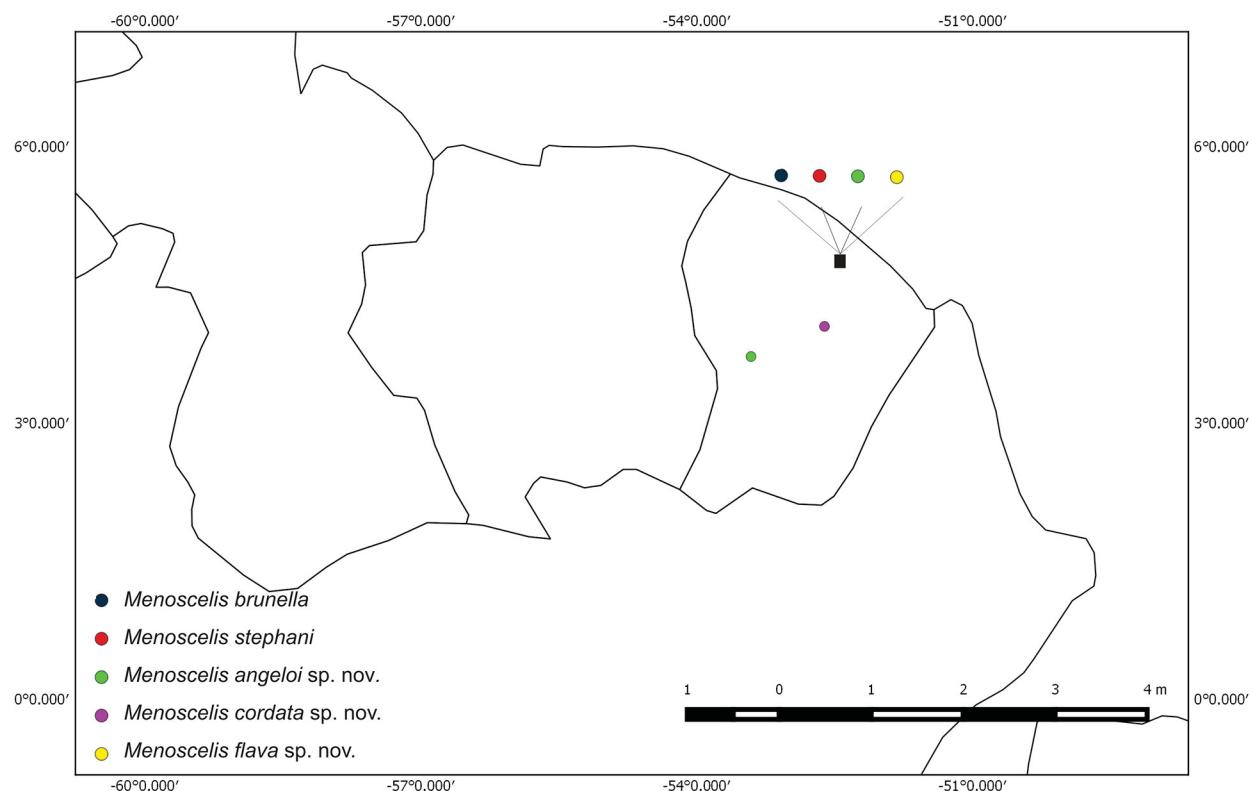
**FIGURE 8.** Prosternal process of *Menoscelis*. A–B. *Menoscelis insignis* Mulsant, 1850 female (A) and male (B). C–D. *M. saginata* Mulsant, 1850 female (C) and male (D); E–F. *M. stephani* Corrêa *et al.*, 2011 female (E) and male (F); G. *M. brunella* Corrêa *et al.*, 2011 female.



**FIGURE 9.** Prosternal process of *Menoscelis*. A. *Menoscelis flava* sp. nov. female; B. *M. cordata* sp. nov. female; C–E. *M. angeloi* sp. nov., female (C), male (D) and female (E).



**FIGURE 10.** Geographical distribution of *Menoscelis insignis* Mulsant, 1850 and *Menoscelis saginata* Mulsant, 1850.



**FIGURE 11.** Geographical distribution of *Menoscelis brunella* Corrêa et al., 2011, *M. stephani* Corrêa et al., 2011, *M. angeloi* sp. nov., *M. cordata* sp. nov. and *M. flava* sp. nov.

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